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**DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION**

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As a below-named inventor, Thomas H. Baum and Chongying Xu we hereby declare that my residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled "**MOCVD of SBT using Tetrahydrofuran-Based Solvent System for Precursor Delivery**", the specification of which

(check one)  is attached hereto.  
 was filed on \_\_\_\_\_ as Application Serial No. \_\_\_\_\_  
 and was amended \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Claimed  
 Yes  No

| (Number) | (Country) | (Day/Month/Year Filed) |
|----------|-----------|------------------------|
|----------|-----------|------------------------|

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this specification is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

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| (Application Number) | (Filing Date) | (Status-Patented, Pending, abandoned) |
|----------------------|---------------|---------------------------------------|
|----------------------|---------------|---------------------------------------|

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

**OLIVER A. ZITZMANN, Reg. No. 38,691**

**THOMAS MAVRAKAKIS, Reg. No. 39,763**

**STEVEN J. HULQUIST, Reg. No. 28,021**

All correspondence in connection with this application should be sent to:

Oliver A. Zitzmann  
ATMI, Inc.  
7 Commerce Drive  
Danbury, CT 06810  
Telephone: (203) 794-1100

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of first inventor: Thomas H. Baum

Inventor's Signature Thomas H. Baum Date 12-3-99

Residence: 2 Handol Lane, New Fairfield, CT 06812

Citizenship: USA

Post Office Address: 2 Handol Lane, New Fairfield, CT 06812

Full Name of second inventor: Chongying Xu

Inventor's Signature Chongying Xu Date Dec. 03/99

Residence: 8 Heather Court, New Milford, CT 06776

Citizenship: China P.R.

Post Office Address: 8 Heather Court, New Milford, CT 06776

## ASSIGNMENT

We have made an invention described in the U.S. Patent Application entitled "Method of Fabrication Iridium-Based Materials and Structures on Substrates, and Iridium Source Regents Therefor" which has been executed by us on the same date as this Assignment for filed in the United States Patent and Trademark Office.

We assign to Advanced Technology Materials, Inc., 7 Commerce Drive, Danbury, Connecticut 06810, all of our ownership and rights in:

- (i) the invention and U.S. Patent Application;
- (ii) U.S. Patents on the invention; and
- (iii) corresponding foreign patent applications and patents.

We are making this assignment based on our relationship with Advanced Technology Materials, Inc.

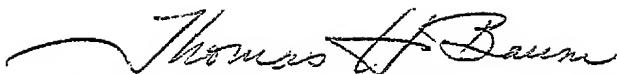
We request the Commissioner of Patents and Trademarks of the United States and the appropriate officers of all foreign countries to issue patents on the invention to Advanced Technology Materials, Inc.

We agree to execute any other legal documents that may be required to effectuate this Assignment.

We agree that we will promptly communicate to Advanced Technology Materials, Inc. all facts that come to our attention affecting the invention or patent rights.

We agree that we will testify in any interference or litigation involving the invention or patent rights.

We state that we have not previously taken any action in conflict with this Assignment.



Thomas H. Baum

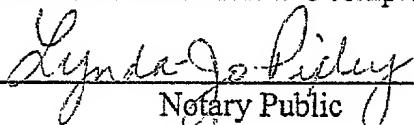
12-3-99

Date

State: Connecticut

County: Fairfield

Thomas H. Baum appeared before me on December 3, 1999. He declared to me that he is the person described in this Assignment. He executed this Assignment before me, and declared that his execution was completely voluntary.



Notary Public

(SEAL)

My commission expires on:

2/28/04

**LYNDA-JO PIXLEY**  
**NOTARY PUBLIC**  
MY COMMISSION EXPIRES FEB. 28, 2004



Chongying Xu

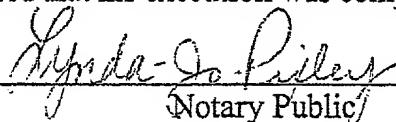
Dec. 03/99

Date

State: Connecticut

County: Fairfield

Chongying Xu appeared before me on December 3, 1999. He declared to me that he is the person described in this Assignment. He executed this Assignment before me, and declared that his execution was completely voluntary.



Notary Public

(SEAL)

My commission expires on:

2/23/04

**LYNDA-JO PIXLEY**  
**NOTARY PUBLIC**  
MY COMMISSION EXPIRES FEB. 28, 2004